

Injection Study for 6-Sector PRISM FFAG by Using Pulsed Alpha Particles

by

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An experiment to study a novel technique of phase rotation at PRISM-FFAG has been proposed with a 6-sector FFAG ring. A method using emitted alpha particles from a standard radio-active source ^{241}Am applied for proof of phase rotation. Design of pulsar, inflector and electrodes from ^{241}Am -source guiding to a sector and diagnostic tools are described based on several simulation studies. The method of rf-particle TOF measurement manifests the validity of the pulsed alpha particle injection into an ultra-high field gradient RF cavity.